

# GREATER TECHNOLOGY

## TECHNOLOGY AERONAUTICAL LABORATORY IS SECOND TO NONE IN SCIENTIFIC WORLD

### DEDICATION DATE IS SET FOR JUNE

#### Huge Wind Tunnel To Occupy Three Floors—Extends Length of Building

With the completion in the near future of the Daniel Guggenheim Aeronautical Laboratory Technology will take its place at the front among engineering educational institutions of the world in the facilities which it will offer for the advancement of the newest of engineering sciences. The building will be one of the first in this country devoted entirely to aeronautical instruction and research, and when completely equipped will be second to none in the world.

This latest addition to the Institute's beautiful group of buildings was made possible by the generous gift of \$230,000 last winter by the Daniel Guggenheim Foundation for the Promotion of Aeronautics. This amount is expected to cover the entire cost of construction of the new building.

The new laboratory will fill a need at the Institute which has developed since the course in Aeronautical Engineering was begun. Before that time the laboratories and equipment were ample enough to take care of the number of men who were taking graduate courses in aeronautics. Since the advent of the undergraduate course, however, the facilities for instruction of the large number of students in that course proved inadequate, and

(Continued on page 7)

### Math Professor Writes New Play About a Flapper

#### Professor Passano Thinks That Variety Is The Spice Of Writing

It has long remained an unknown fact that hidden among the lost integral signs and influential equations of Building 2 there is one who secretly shines in the literary world. For diversification of subjects and types of writing there are probably few modern authors who surpass Professor L. Magruder Passano of the Department of Mathematics. His writings range from philosophical essays to calculus books, juvenile histories to theses on scientific management, from college songs to drama of the Shakespearian type.

It was with a certain inward hesitancy and trepidation that I approached his office door and gently knocked. It had been just a year since I had crossed that threshold, but then it was to seek some help in solving one of those most peculiarly incomprehensible problems which Professor Phillips has included in his "Differential Equations." A barely audible "Come in" encouraged me to open the door.

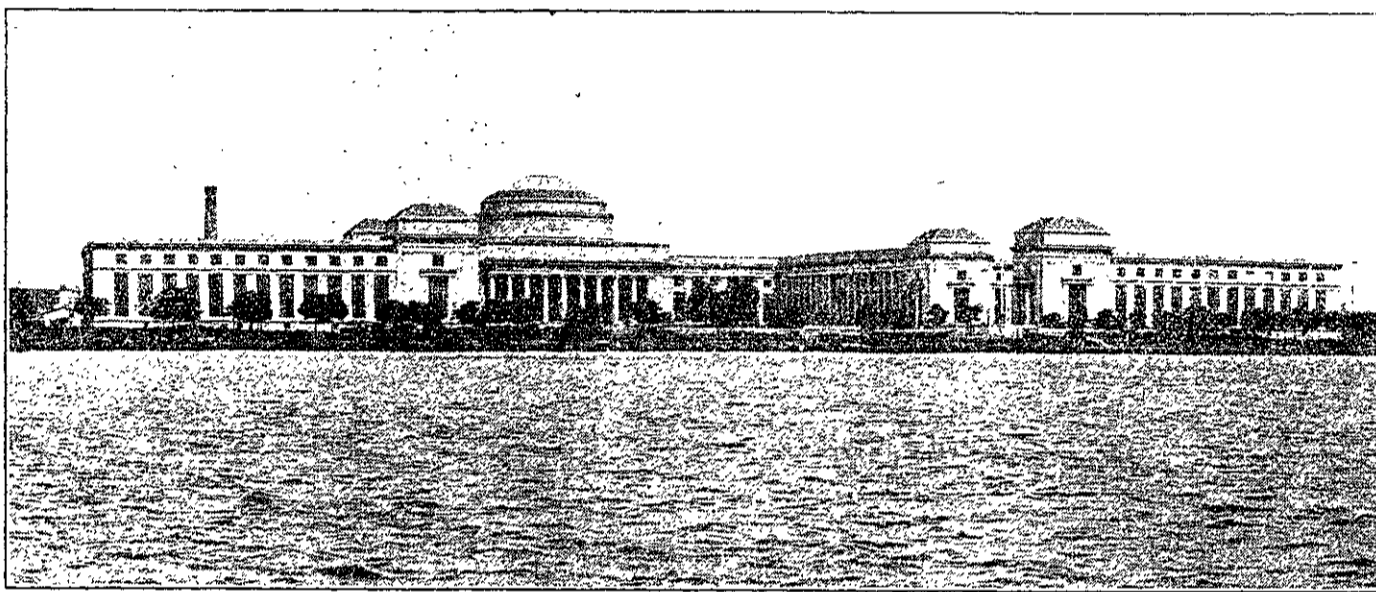
To those who are unacquainted with Professor Passano perhaps a brief description would be interesting. He is a most genteel appearing man, tall, erect, and rather dark complexioned. His raiment is immaculate, well polished brown shoes partly hidden by spotless spats, a brown checked suit with knife-like creases in the trousers, and the sleeves of the coat, a "flight-of-angels" collar encircled by a four-in-hand which blends with the rest of his apparel. His features are sharp and his dark eyes sharper. Like many of us he is unfortunate enough to have to wear glasses. His protruding chin is enhanced by a goatee of the type which

(Continued on page 2)

#### Where to Find Regular Features of THE TECH

Editorial page ..... 4  
Late News page..... 5  
Sports pages..... 8 & 9

## CONSTRUCTION OF TWO NEW DORMITORY UNITS MARKS BIG STEP IN BUILDING PROGRAM



### MANY INNOVATIONS LEND MODERNNESS

#### All Rooms Will be Connected By Telephone From One Switchboard

Consistent effort has at last resulted in the near completion of the entire eastern side of Technology's proposed Dormitory Quadrangle. Centered as the Institute building program is around dormitory expansion, work on the units has set a splendid pace for the remainder of the projects. Ninety-three was once hailed as the most modern of dormitories ever built, but the two new sections embody many of the newest improvements.

All rooms in the new units are "four square,"—that is, no corner closets jut into the room. This result was attained by placing the closets between the rooms, and is a decided advantage. The design of toilets and showers has been greatly improved, the old double unit having been discarded in favor of the single. They are completely finished in white tile, making the general appearance much more attractive, and are altogether superior to those in any of the other dormitories.

It is expected that these rooms will be opened to students about February 15, at which time the men who are now in 'Ninety-Three' will be transferred to the new units with no increase in their rentals. This is being done in order that 'Ninety-Three' may have its first spring cleaning, which is to include repainting, refinishing,

(Continued on page 2)

## Professor Tyler Recalls Student Days at The Institute and Describes Conditions at Old Rogers Under President Walker

Dr. Harry W. Tyler '84, has written expressly for the Greater Technology Issue the following reminiscences of his early days at the Institute. Having served with the Faculty for nearly half a century, Dr. Tyler is probably as well fitted to tell the absorbing story of our growth as any person now connected with Technology. Those who have had the opportunity to hear any of the professor's addresses will recognize in the following article the familiar dry, subtle humor of his outlook upon life.

It is notoriously easy for the aged to be garrulous and an invitation to reminisce is surely a mark of editorial recklessness. The time limit under which this is written must absolve the author from any embarrassing responsibility for accuracy; the errors may be attributed impartially to the infirmities of memory and to The Tech proof reader (if such a person exists).

On a day which I could wish less remote than 1880, I remember trudging deviously from Chelsea through Charlestown up the steep north slope of Beacon Hill, wondering whether the then unfamiliar trees of Boston Common meant that I had again wandered back into the country, and barely arriving at the Rogers Building in time for the dreaded entrance examinations. Of these my main recollection is of the pervading presence of Professor William Ripley Nichols—now feebly suggested by the portrait in Walker Memorial.

#### Commuted from Ipswich

Rogers Building, flanked by the present Natural History Museum on the east, looked out westward over a one-story brick laboratory occupied by Mrs. Ellen H. Richards and her satellites and a somewhat larger drill shed and gymnasium, not unlike its successor which is still extant on the railroad side of Exeter street. Trinity Church foreshadowed the future distinction of Copley square but beyond it the intersecting railroads, aiming at Albany and Providence, traversed relatively vacant territory but recently reclaimed from the Back Bay, to become for a time at least the "court end" of Boston. Here and there the dreary landscape was dotted with new houses. My personal day began and ended at Ipswich—twenty-eight miles north, where I lodged and studied—not perhaps too unlike the typical brown-baggers of 1928.

With President Walker's advent in 1881 the whole Institute took on new life and courage. President Rogers lingered—a venerable figure—until his death at the graduation exercises in

#### Governor Expresses Appreciation of M.I.T.

The citizens of Massachusetts have justifiable pride in the educational institutions of the Commonwealth. Among them none is contributing more effectively to the welfare of the people than the Massachusetts Institute of Technology. Chartered by the State to foster education in mechanic and allied arts it has so clearly seen and discharged its task that it is today recognized throughout the world as an institution of the first standing in its chosen field. Fostered in the past to some extent by the State support but now independent of that support, the Massachusetts Institute of Technology is recognizing not less clearly its obligations as a public servant in the field of education. In the future as in the past, the Institute will provide in large part the means for the enrichment of the economic life of the people.

(Signed) ALVAN T. FULLER.

1882. Dr. Runkle recuperated as professor of mathematics from the strain of eight years as president.

At the other end of the official scale, John Thompson—a genial Charlestown Hibernian—did what he could to keep buildings, professors and students up to his standards of order and decorum. A lady of stern aspect and severe vocabulary conducted the coat-room and postoffice—the Bird in the Cage.

Besides the various departments of that time, Rogers housed somewhere in its upper spaces the Lowell School of Design with a director of ultra-French physiognomy and a species of young ladies whom it was quite impossible to mistake for Institute coeds.

#### First Benefactor of The Tech

The professors of that period were (from my point of view at any rate) far more dignified and formidable than gentlemen of their calling and age are now. Even students wore beards—professors of course. Professor Atkinson, of English, generously extended his chair to cover history and economics, and certainly did his genial best to impart at least a liberalizing germ to each of the young philistines in his classes. Professor Nichols made first-year chemistry a searching test of all who were to go further, but Mrs. Stinson, in the supply-room, helped out with consolation as court-plaster. Those who survived first-year chemistry met Professor Cross in second-

year physics, and if they succeeded with him were in a fair way to become juniors and seniors. The Tech was founded and I had the felicity of securing for it from President Walker the use of a room too dark for much else.

Having been appointed on graduation to the exalted post of assistant in chemistry I sought additional occupation and income above the customary \$500 stipend by asking Professor Runkle if there would be any chance to teach mathematics also. He thought there might be, but the professor of chemistry demurred. I "might do either but not both," so chemistry was sacrificed, as well as the freshman class of '88, at whose expense I gradually learned how to teach or how not to teach.

Returning from two years' of graduate study in Germany in 1889 with the expectation of keeping up something of the scientific momentum there acquired, I found President Walker much perturbed at the impending loss of Mr. J. P. Munroe '82, as registrar, and was at short notice persuaded to attempt the job—an attempt continued (with minor interruptions and expanding responsibilities) for seventeen years. It gave me much appreciated contacts with most of the older Technology men, since I was for more than half the time clerk of the Executive Committee of the Corporation and incidentally, for a brief period, secretary of the Alumni Association.

#### Building Program Started

During these seventeen years—which extended beyond President Walker's term and into that of President Pritchett—much happened, new courses were inaugurated in chemical engineering, sanitary engineering, naval architecture and a former course in geology was revived. The Walker Building with its rectangular ugliness had been opened in 1883. Six years later found us beginning an extensive group of engineering buildings on Trinity Place, culminating in the Pierce Building and followed, as an anti-climax by the temporary Lowell Building for electrical engineering.

Among the faculty of that period one might mention Swain, Allen, Burton, Porter—an able civil engineering quartet assembled by President Walker; Lanza, Peabody and Schwamb—indefatigable in mechanical engineering; Richards—always a tower of strength—Drown with Norton, Talbot and Noyes in chemistry; Cross, who expanded physics into electrical engineering; Sedgwick, Hough and Bigelow in biology; Dewey in economics and Levermore in history—these five bringing the research spirit of early Johns Hopkins. European influences

(Continued on page 2)

### New York Alumni Chose Beaver As Institute Mascot

#### Announced Selection in 1914 At Presentation Dinner For Dr. MacLaurin

How many Technology men realize the significance of the beaver as the Institute's mascot? Or that it was chosen as being the most truly representative of Technology men in general after a careful study had been made of the habits and characteristics of several other animals? Few perhaps are acquainted with the facts of its official adoption.

The idea of selecting a mascot originated in 1914 when the Technology club of New York was planning for its annual banquet. The committee in charge of the affair thought it would be highly appropriate to select at such a time a mascot which would typify both the spirit of Technology and its leader, Dr. MacLaurin, who had then completed four years of particularly valuable services as president.

#### Beaver Chosen as Mascot

Considerable difficulty was encountered by the members in settling upon the animal which seemed to best meet these requirements. At last however, the beaver was chosen and at the club's annual dinner at the Plaza Hotel on January 17, 1914, the selection was announced by presenting Dr. MacLaurin with two handsomely mounted specimens of the animal decided upon. L. D. Gardner '98 made the presentation and in his speech he explained the difficulties met with in making the selection and how the beaver was finally picked out as the animal whose habits and customs were most appropriate to stand as the representative of Technology men generally and Dr. MacLaurin in particular. Its unique industry and modest and inconspicuous acquisitiveness were the characteristics of the beaver which finally won for it the committee's approval.

Mr. Gardner said that the first anti-

(Continued on page 11)

## PROFESSOR TYLER RECALLS STUDENT DAYS AT ROGERS

Considers Professors of 1880  
More Dignified Than  
Those of 1928

### STUDENTS WORE BEARDS

(Continued from page 1)

were also of importance in the Institute as well as in other parts of the country, notably in the departments of architecture and chemistry, men in the latter department including, for example, L. M. Norton, A. H. Gill, H. P. Talbot and A. A. Noyes. In English, Arlo Bates. During this period also the Alumni waxed in resources and influence.

#### Walker Memorial Planned

In 1895 we had a campaign for state aid, resulting in the modest success of \$25,000 a year for six years. The Alumni throughout the state responded loyally to President Walker's appeal for assistance, and in 1901 a renewed effort secured ten years' extension of the grant. Among members of the Corporation remembered best I may recall John Cummings, the veteran treasurer—then broken in health—William Endicott—who had an unequalled reputation for securing funds for good causes, Alexander Wheeler, Augustus Lowell, Henry Saltonstall, Col. Thomas Livermore—a Civil War comrade of President Walker.

An incident which still arouses mixed emotions was an evening talk to a student group by Admiral Sampson—the hero of the battle of Santiago—ending with the seemingly quite casual remark, "I have been invited to be the head of the school"; the amazement of the audience checked for a few moments the appropriate round of applause. Fortunately the Admiral appreciated that his shattered health precluded acceptance. The accession of President Pritchett put a welcome termination to a period of suspense and was followed by a marked increase of interest in the social side of student life, illustrated by the prompt completion of the Alumni subscription of \$100,000 for the Walker Memorial gymnasium, and the gradual shifting of emphasis from the original plan for a gymnasium alone to a memorial which should provide both this and a student union.

#### Organized Alumni Groups

The so-called Harvard merger controversy had many reactions acutely interesting to participants at the time but of limited concern to others. The group of Alumni devoted to the principle of permanent independence doubtless had far-reaching influence and it is worth recalling that they at one time—when a change of the location of the Institute seemed desirable—secured an option on a possible site then in Hyde Park (but now in Boston) at a quite safe distance from the University. Alumni groups in other parts of the country were gradually becoming self-conscious and definitely organized—notably in Chicago, the Northwestern Association undertaking to include under its wing pretty much everybody beyond the Hudson River. For a good many years before the invention of the College Entrance Examination Board, the Institute held its entrance examinations in June at distant points with co-operation on the part of local Alumni and occasionally the visit of a member of the Faculty.

## Finds Right Tobacco for the Tropics

October 6, 1926

Larus & Bro. Co.  
Richmond, Va., U. S. A.  
Gentlemen:

Most all well-known tobaccos smoke well in a cold or temperate climate, but very few in a tropical climate. They are mostly too heavy, don't seem to be blended right—at least that is my opinion gained from practical experience.

However, Edgeworth is the same in any climate. Again that is my opinion gained by practical experience.

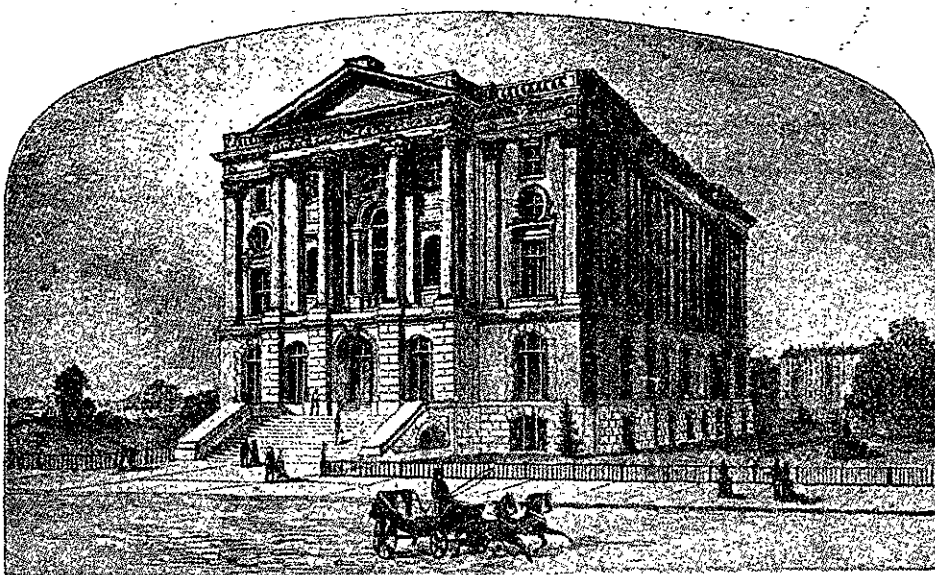
I cannot get the same pleasure out of any brand of tobacco that I can out of Edgeworth, and I have tried many—and paid fancy prices, too. It costs real money to smoke imported tobaccos here; the import duty is very high.

Anyway, we cannot have everything we would like in these countries, so we hold on to all the little pleasures possible. Now you know why I smoke Edgeworth.

Yours respectfully,  
R. C. Rigg  
Cartagena, Columbia, S. A.

**Edgeworth**  
Extra High Grade  
Smoking Tobacco

Perhaps Many Older Alumni Remember  
When "Boston Tech" Looked Like This



### Funds Subscribed To Dormitory Construction

Subscribed by 44 of 59 classes  
on November 28, \$325,187.47.

Necessary to complete program (approximately) \$800,000.00.

#### RECORD OF CLASSES

For one unit\* (\$80,000 to \$100,000)—1890 and 1901.

For one floor (\$18,000 to \$20,000)—1895 (2 floors) and 1892.

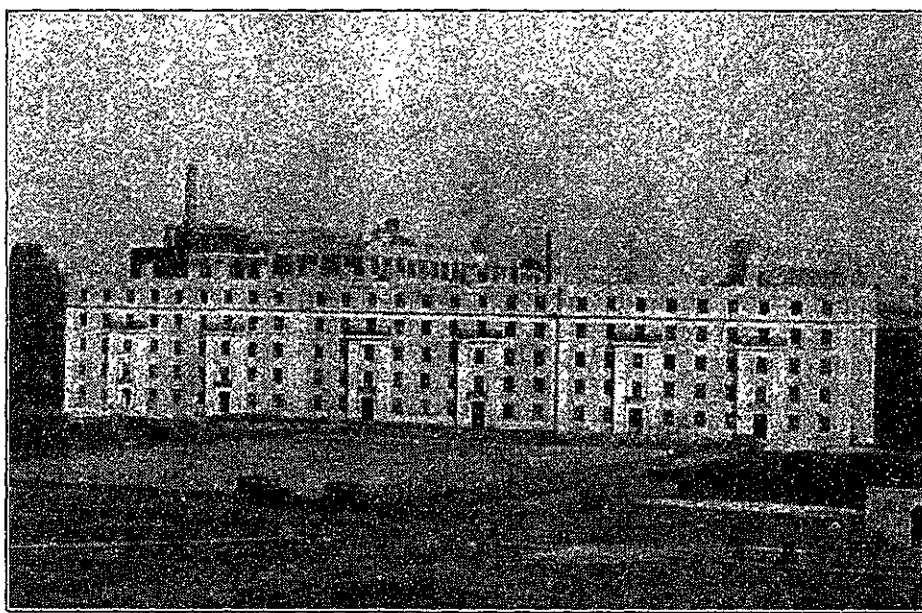
For one room (\$2,200 to \$2,400)—1868, 1871, 1877 (2 rooms), 1894 (5 rooms), 1897 (7 rooms). \$400 to \$2,200—1872, 1874, 1875, 1876, 1884, 1888, 1891, 1899, 1903, 1911, 1914, 1915, 1926.

\$80 to \$400—1881, 1886, 1905, 1909, 1917, 1918, 1922, 1925.

Less than \$80—1870, 1882, 1902, 1906, 1907, 1910, 1912, 1916, 1919, 1920, 1921, 1923, 1924.

\*Does not include class of 1893 whose gift made possible the erection of a complete double unit.

### Technology's Eastern Skyline After The Construction of Two New Dormitories



## New Units Complete One Side of the Quadrangle

### Southern End Will Be Left Open, Forming Three- Sided Court

(Continued from page 1)

etc. This means that at the summer opening all units including 'Ninety-Three' will be available for occupancy, and that the Superintendent will have a chance to go through the old dormitories this summer and repair and renew them.

One of the features that has been most desired is about to be realized. An order was placed this week for a complete intramural telephone system which will include a two-position switchboard with a capacity of 800 lines. This is large enough to take care of all the dormitories contemplated for the next few years. The system will be installed this summer, and will permit every man in the dormitories to talk with any other man without stirring from his own room. Suitable arrangements will also be made for outside connections.

#### Dormitory Expansion Demanded

The furniture and equipment of the new units are to be similar to those in 'Ninety-Three, except that after two years' experience, it has been decided to discontinue the use of the bridge lamps and substitute a desk type.

The dormitory board believes that when these units are completed they will offer accommodations that are superior to any other dormitories they know of. A new dormitory pamphlet will shortly be issued showing the floor plans, rentals, and summer prices, and giving other information.

For ten years past there has been a constant and ever-increasing demand for greater dormitory facilities. Dormitory expansion was made the subject of speeches and letters by various Alumni and Institute officials, and was urged from every quarter as being of vital importance to Technology's increasing enrollment.

The Class of 1893 in one contribution gave to the Institute the double unit known as 'Ninety-Three. This gift was announced by President Samuel W. Stratton in June 1923, and the erection was completed by the spring of 1924. It was at that time a model of dormitory construction and presented several unique features.

The interior design was governed throughout by the idea of simplicity combined with a maximum of comfort. It had been found that the majority of students preferred to room alone, and the plans called accordingly for a preponderance of single rooms. At

the same time communicating doors were left to permit the formation of suites if it should be desired. Roominess and good lighting were featured in the construction, and the morning rush to the bathroom was avoided by placing wash bowls in every room.

The inside wall finish was unique in itself. Great difficulty had been experienced in finding a wall finish that would be both durable and attractive, and the burlap was an innovation. A good grade of burlap was applied directly to the wet plaster and worked thoroughly into it. The resulting surface had the advantages of plaster and none of its disadvantages: the burlap protected the plaster and reinforced it; if nails were driven into the wall the burlap prevented the plaster from falling out in chunks; it took paint easily, was not hard to clean, and waterproof, and presented an attractive finish. "Duraflex" flooring similarly solved the question of flooring for the new building. It was harder than linoleum, and at the same time not hard enough to be noisy under chairs and heels. No seams or cracks were necessary and repairs were possible without spoiling its appearance. Novel features were introduced in its structural design, which was referred to as the Gunstone System. This soubriquet is taken from the use of the cement gun and the resemblance to solid stone of the result.

This building was intended as the first of a group designed in the form of a quadrangle completely closed in,

## Professor Passano Doubts If His Play Will Get By Boston Censors

Is Author of Two Technology  
Songs, One of Which Was  
Published in 1906

(Continued from page 1)

marks a man as distinguished, the short beard is balanced by a mustache. The goatee and mustache are usually separated with corn-cob pipe which apparently holds an infinite amount of tobacco.

I had heretofore had knowledge of only two things which Professor Passano had written, one "The Courts of M. I. T." the other the play, "A Family Affair," which he had recently published. It was a surprise to find that he had a three foot shelf full of books he had written and magazines which contained articles by him. There was an essay of some fifteen pages on philosophy which had been published in

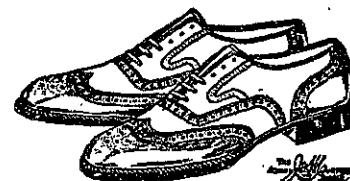
the English magazine *Mind* some years ago.

There were two histories there, one a *Child's History of Maryland*, the other, a history of the same state, written for adults. Professor Passano informed me that Maryland was his native state. Nestling beside these were a calculus and a red bound volume which I recognized only too well as one of my high school textbooks, *Passano's Trigonometry*.

There were several issues of the *Freeman*, a journal which a few years ago suspended publication. In these he had run a series of humorous monologues describing the general assiduity of the modern college man. Part of this series was also published in the *Stratford*, another Bostonian magazine.

One entire summer had been spent (Continued on page 7)

**JOHN SPANG**  
QUALITY RADIO EQUIPMENT  
STANDARD SETS AND PARTS  
INSTALLATION SERVICE  
Phone Kenmore 0745  
126 MASSACHUSETTS AVENUE  
(Next to Cor. Boylston St.) Boston  
"First Tested—Then Sold"  
—Discount to Tech Students—



Two convenient stores  
in which to buy your  
Johnston & Murphys  
—in the Parker House  
and next the Touraine.  
Or we should be glad to have  
you buy from our representative  
who will call with  
samples.

THE JOHNSTON & MURPHY SHOE  
We sell JOHNSTON & MURPHY only

J. L. ESART COMPANY  
46 BOYLSTON ST. 58 SCHOOL ST.  
Next Hotel Touraine Parker House

but in the latest rendering the south end is open, leaving a three sided court.

(Continued on Page 11)

## Columbia Cornice Company, Inc.

Est. 1912

### Roofing and Sheet Metal Work of Every Description

#### A Few of the Recent Jobs Completed

JOB	ARCHITECT	CONTRACTOR
Botany Bldg., Wellesley College, Wellesley, Mass.	Day & Klauder	Fred T. Ley & Co.
Boston Five Cents Savings Bank, Boston, Mass.	Parker, Thomas & Rice	W. A. & H. A. Root
Levi F. Warren School, Newton, Mass.	Ripley & Leboutillier	B. W. Neal, Inc.
Waterman Bldg., Boston, Mass.	Thos. M. James	W. A. & H. A. Root
Elks' Bldg., Boston.	McLaughlin & Burr	W. A. & H. A. Root
Salada Tea Co. Bldg., Boston.	Densmore, LeClear & Robbins	Sawyer Constr. Co.
Police Headquarters, Boston.	Ritchie, Parsons & Taylor	Joseph Rugo
Roxbury Latin School, Roxbury	Perry, Shaw & Hepburn	Leighton-Mitchell
Apartment Bldg., 192 Commonwealth Ave., Boston.	Bigelow & Wadsworth	Fred T. Ley & Co.
W. F. Schrafft & Sons Factory, Charlestown, Mass.	Lockwood, Greene & Co.	Turner Constr. Co.
Ford Motor Plant, Somerville.	Albert Kahn	Blair Constr. Co.
Ward Baking Co. Garage, Cambridge, Mass.	J. R. Torrance	Equity Constr. Co.
National Biscuit Co. Garage, Cambridge, Mass.		H. L. Hauser Bldg. Company

And the Following Technology Jobs under construction:  
Dormitories Units Nos. 1 & 3  
Boat House  
Richard Homberg Memorial Infirmary Bldg.  
D. Guggenheim Aeronautical Laboratory

Chase & Gilbert  
Somers & Drisko  
Joseph Rugo

## Arthur B. Little, Inc.

CHEMISTS

ENGINEERS

MANAGERS

ESTABLISHED 1886

CHARLES RIVER ROAD AT KENDALL SQUARE

CAMBRIDGE, MASSACHUSETTS

# MODERN INFIRMARY AUGMENTS THE PRESENT CLINIC

## STRUCTURE WILL EMBODY LATEST METHODS TO CARE FOR EMERGENCY CASES

### ENTIRE TOP FLOOR WILL BE SOLARIUM

#### Building Is Gift of Family Of Crew Martyr—Equipped By Institute Funds

The new infirmary, an important unit of the building extension program being carried out by the Institute, has assumed definite shape. Construction begun last summer has been slowed up somewhat by the cold weather during the past several weeks, but the exterior of the building is now practically finished.

Though not particularly impressive in size of architecture when viewed as a unit, it presents a very solid and practical appearance which is quite suitable to its purpose. The structure forms a wing of Building 3 and is so constructed that the entrance will be at the first floor level, and almost directly above the entrance to the quarters of the Department of Hygiene in the basement.

**Named After Richard Hornberg '23**  
This addition to the Institute has a very interesting history. Richard Hornberg '23, whose family and relatives have contributed the funds which make it possible, died in the year in which he was to graduate as a result of pneumonia. He was rowing as a member of the Senior crew in the Richards Cup race when the shell sprang a leak. The police boat which approached to effect a rescue accidentally struck the light shell which immediately sank. Hornberg had already been suffering from the effects of an infection, and the exposure was too much for him. He developed a severe case of pneumonia from which he never recovered. His family believed that his death could have been avoided had there been proper facilities for his care. Consequently they gave to the Institute the sum of one hundred thousand dollars to be used toward the construction of a modern and adequate infirmary for the care of student illness. It is to be known as the Richard Hornberg Memorial Infirmary.

One much-needed facility which the new building will offer is sufficient space for examining the students. Such examination is given to all incoming men and at this period the single dressing room and examination room which is available to the Department of Hygiene becomes very crowded. In the new infirmary there will be eight dressing rooms and four examination rooms. These will all be located on the first floor. At the same level will be a physician's office, a waiting and recording room, a first aid room, clinics for the treatment of the eye, ear, nose and throat, X-ray room and dark room, and a dental clinic.

#### Solarium on Top Floor

The infirmary is to contain fifteen beds. These will be on the second floor and will be distributed so as to make two wards of five beds each, four private rooms for the accommodation of cases convalescent or under observation, and an isolation ward. On the same floor will be the emergency operating room, the kitchen, and the sterilizing laboratory.

Perhaps the greatest single feature of the entire building is the solarium which will occupy the whole top floor of the building. It provides a place where convalescent patients may get the full benefit of sunlight and fresh air. These are two things of prime importance as factors in hastening the recovery of a patient. This solarium represents some very advanced ideas in hospital construction. The Institute tried to obtain some glass for use in the windows of this floor which would let in a larger percentage of the health-giving ultra-violet rays than is admitted by ordinary window glass.

#### Quartz Glass Substitute Needed

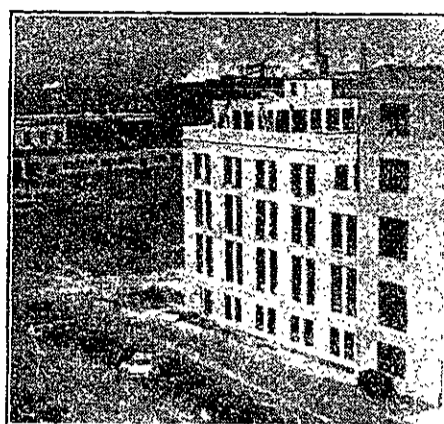
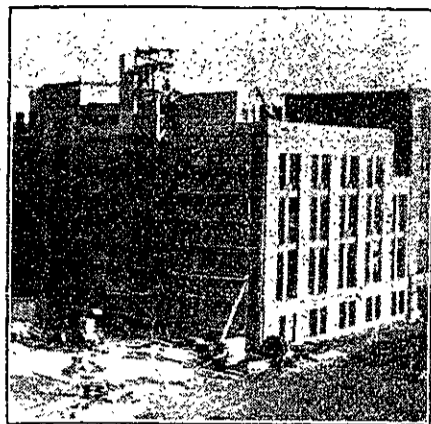
Some was obtained and tested in the laboratories of the Institute. It was shown that the product admitted some fifty percent of the rays but that it deteriorated so rapidly that in about six months time it admitted less of the rays than did common glass. Consequently this glass was not purchased. It is impossible to obtain anything from the market which is practical. Small pieces of fused quartz can be obtained but not in any size which would be of use in the solarium. Attempts are still being made to secure some sort of material which will serve the purpose.

The operating room is of interest in

that although it is not to be used except in cases of emergency, it will be completely equipped so that in case the emergencies do occur, they can be handled as well as though the patient were in a large hospital.

The matter of the personnel has not been decided upon as yet. It remains to be seen what number of people will be adequate. It is not practical to run the infirmary along the lines of a regular hospital, because of lack of sufficient funds for such a project. It would be impossible to maintain a staff of highly-trained and well-paid nurses and physicians. It would be

*Views of New Technology Infirmary Which  
Will House Present-Day Medical Facilities*



impractical also, inasmuch as it is to be hoped that the beds will be empty much of the time. In the summer such cases will probably be very few

and the expenses would be entirely out of proportion.

This is but one of the problems which can only be worked out after the infirmary is actually in operation. At the present time, such questions are only a matter of conjecture, but after the building is in use, it will be seen just how many cases can be expected on an average. It has not been decided as yet what the cost will be to the students for such care as they may receive. There will be no charge for medical attention, but for cases which are cared for in the infirmary, there will necessarily be some charge for the room occupied.

It was in May, 1923, that Hornberg died, and four years later, in July, 1927, ground was broken for the building that will bear his name. To the original \$100,000 other gifts have been added by relatives of the young man. The most notable was one of \$50,000 by Julius Rosenwald. The building itself is entirely the gift of the young man's family. The Institute will equip it from its own funds.

## Tech's Engineering Department took a year to decide - - now, twelve years of Webster Heating has justified their ultimate decision

Back in 1916, after lengthy and careful comparative tests, a Webster Vacuum System of Steam Heating was adopted as standard for all buildings of the Institute by its own Engineering Department, in collaboration with William W. Bosworth, Architect, French & Hubbard, Consulting Engineers; Stone & Webster, General Contractors; Lynch & Woodward, Contractors.

Now, in 1928, the State can look back over twelve years of satisfactory heating with negligible maintenance and replacement costs and see how fully the Webster System has justified the approval of those who chose it.

### Who We Are And What We Do

Warren Webster & Company are a great deal more than mere manufacturers of heating specialties. . . . Webster Systems of Steam Heating are a combination of service, experience, equipment and engineering methods.

Service by a comprehensive organization of trained heating specialists covering every state in the Union. . . . Plus Webster System Equipment, which comprises a complete line of steam-heating appliances proven correct in design by test and use. . . . Plus Webster engineering methods, developed by our experience and in our extensive laboratories, and which insure correct application of Webster System Equipment.

We suggest that you get in touch with the nearest branch office at an early stage in the planning of your next building.

### Warren Webster & Company

Pioneers of the Vacuum System of Steam Heating

Camden, N. J. 52 Branch Offices

BOSTON: 220 Devonshire St.

In Canada: Darling Bros., Ltd., Montreal

- since 1888  
**Webster**  
Systems  
of Steam Heating

More Than 46,000 Installations in America's Finer Buildings

A Record of  
Continuous  
News Service  
for 46 years



Official News  
Organ of the  
Undergraduates  
of M. I. T.

## MASSACHUSETTS INSTITUTE OF TECHNOLOGY

### MANAGING BOARD

E. Ruch '28.....General Manager  
I. Chatfield '28.....Editor  
A. Parks, Jr. '28.....Business Manager

### ASSOCIATE BOARD

W. Young '29.....News Editor  
H. Rouse '29.....Features Editor  
G. Sullivan '29.....Sports Editor  
A. C. Pforzheimer '29.....Treasurer  
J. F. Palmer '29.....Circulation Manager  
L. C. Hamlin '29.....Advertising Manager

### EDITORIAL DEPARTMENT

Editorial Board  
A. P. Morell '28 W. W. Hoppe '28  
E. L. Welcyng '28 H. T. Gerry '29  
F. L. McGuane '28  
Staff Photographers  
C. J. LeBel '30 T. Lewenberg '30  
L. J. O'Malley '28

### NEWS AND SPORTS DEPARTMENTS

Night Editors  
G. R. Taminosian '28 R. T. Wise '28  
M. Brimberg '29 W. J. Danziger '29  
D. T. Houston '30  
News Writers  
C. Connable '30 F. C. Fahnestock '30  
Sports Writers  
P. Keough '30 L. Verveer, Jr. '30  
Reporters  
F. Crotty '30 N. H. Levee '31  
R. Davis '31 R. C. Moeller '31  
H. B. Goetz '31 L. Seron '29  
E. W. Harmon '30 G. P. Wadsworth '30  
L. W. Laing '30 S. C. Westerfeld '31  
E. S. Worden, Jr. '31 J. A. Shute '31

### OFFICES OF THE TECH

Walker Memorial, Cambridge, Mass.  
News and Editorial—Room 3, Walker.  
Telephone Univ. 7029  
Business—Room 302, Walker.  
Telephone Univ. 7415

Printer's Telephone—HAN cock #387  
SUBSCRIPTION PRICE, \$2.50 PER YEAR  
Published every Monday, Wednesday and Friday during the College year except during college vacations  
Entered as Second Class Matter at the Boston Post Office  
Member Eastern Intercollegiate Newspaper Association

### BUSINESS DEPARTMENT

#### Treasury Department

Assistant Treasurer  
K. D. Beardsley '29  
Staff  
G. Smith '30 E. L. Krall '30  
J. Chibas '31 D. M. Goodman '31

#### Circulation Department

Assistant Circulation Managers  
D. W. Diefendorf '30 G. K. Lister '30  
Staff  
J. Alkazin '31 J. K. Minami '31  
G. Roddy '31

#### Advertising Department

Assistant Advertising Managers  
René Semard '28 S. L. Hallett '29  
Staff  
S. A. Moss '30 H. B. Preble '30  
J. Guerrieri '30 R. H. Haberstroh '30  
L. Fox G. H. J. Truax '31  
C. H. Lutz '30

### A GREATER TECHNOLOGY ISSUE

IN the field of commercial journalism a twelve page issue means something almost too insignificant to mention, but to an organization set up to handle a tri-weekly journal of four pages it means quite a little. In producing this issue all departments of the paper have been strained to at least three times normal effort, and the linotypers, make-up men, and pressmen alike have been forced to suffer for the dreams of the undergraduate editors.

These twelve pages, simple as they appear, represent a dream now months old—a dream which increased the pulse of news, sports, features, advertising and circulation departments alike, and caused office typewriters to suffer untold abuse at the hunt-and-punch pile-driving on their keyboards. It represents an accomplishment and sets up a record size issue for future boards of THE TECH to shoot at.

We have conceived these pages as "A Greater Technology Issue" and have printed 3000 additional free copies which are being sent to Alumni throughout the eastern states because we feel that Technology is passing important milestones in its progress and growth. We want the graduates of the Institute to sense this progress and to have an increased feeling of pride over their Alma Mater. And further we want them to realize more clearly what the Corporation, Faculty and Students alike are doing to maintain Technology's position of leadership among Engineering Colleges the world over.

### A COURSE IN HUMANICS

AT a recent Aldred Lecture William E. Nickerson '76, presented some original thoughts on the topic of "Knowledge Plus Wisdom" and during the course of his talk strongly recommended that a lecture course be established for Juniors and Seniors to deal with the human element in the business world.

Mr. Nickerson pointed out that our graduates were fully equipped to meet problems of an engineering nature, but lacked any knowledge of the fundamental rules which govern a man's relations and actions in the business world. He proposed to call such a course "Humanics" and suggested a list of twenty-four worth while topics which might be used.

We feel that Mr. Nickerson has shown us a very valuable way to improve our curriculum and better train engineers for their life work. We hope his suggestions will bear fruit.

### OUR AIR CASTLE AUDITORIUM

AT what kind of a meeting has your enthusiasm been worked up to the highest pitch? Wasn't it at some large gathering? The larger the group assembled, the greater the enthusiasm that can be produced. In the light of this we wonder why it is that a larger college does not have the spirit that is common to the smaller college.

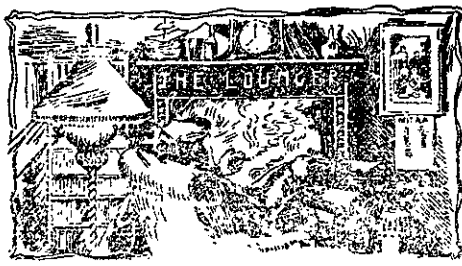
It seems to us that this situation is explained to a large extent by the fact that few of the larger schools have assembly halls large enough to accommodate all their students. Small minorities only can get together at a time and the spirit worked up is more for the group than for the school. We do not have the large football games here at Technology which, whatever their disadvantages, get the majority of the students together.

We have been trying, during the past few years, to create a greater Technology spirit by means of our freshman rules, freshman lectures, and our dormitory plans. These are all aids toward that end, and great aids too, but they only include a fraction of the undergraduate body at a time. The only practical way to reach the whole group at once is through assemblies which it is impossible to hold because we lack a meeting place. Is it too much to hope that someday we shall have an auditorium?

"Damn this younger generation" yells some alumnus who has cut down his wife's allowance to aid the new dormitories, "Money is to them like Castoria is to children, they always cry for more." But progress and complete satisfaction are never to be found together, so as our dormitory plans are materializing we build our air castles for the future.

### ACKNOWLEDGEMENT

We wish to take this opportunity to thank the Editors of "The Technology Review" for statistics, stories, and data which they have so kindly furnished us for this issue.



Who'd a thought it? Here the Lounger has been going to school for years with a second Oscar Wilde, and he never so much as guessed that Magruder had it in him! He may be only a teacher of math in one wing of the factory, this Leonard Magruder Sneaker Joseph Passano, but he sure knows his women. But how come a teacher of calculus turning sex authority? Well, he said himself that sex has always been the biggest problem he has ever had to face, and even now the best solution he can give to the girl question is to call her "an equation of the nth degree with all imaginary roots." Only imagine—this from our own Sneaker Joe!

"Naughty-naughty" is Maggie's personal criticism of his barefaced play of such modern evils as the Charleston and prohibition, only omitting the unmentionable companionate marriages. And to give the good man credit for his judgment the Lounger will have to admit that it actually is naughty—and that doesn't half express it! The Lounger's readers can imagine "The Hard Boiled Virgin" as written by an author who has known Tech men for years, he will have only a fair idea of the limits of this drama. And just for atmosphere, Mag has picked Hell (not M. I. T.) for the scene of his action.

If the old foggies can worry so permissibly on just what the younger generation is coming to, the Lounger can't help having even a few qualms on what's going to happen to the older people if this is a fair sample of their morbid condition. When a Tech professor who has plenty of classes and tutoring to occupy all his time has to turn to sex plays to unburden his mind, what can be expected of the youngsters whom he teaches? No wonder they go to the dogs and Back Bay brawls. But say what he will, the Lounger must admit that the play is really very naughty and rather interesting. (Adv.)

The Lounger doesn't know if present Alumni used to manage it this way, but Johnny Hartz, Class of '28 (if it works), has just presented Lobby with a box of cigars.

A word of advice from an experienced Lounger to all Institute men. A recent edition of one of Boston's greater dailies made mention of the latest Peeping Tom caught in the residential district—a Harvard man again of course. It may be that he was only a youth athirst for knowledge that his profs wouldn't divulge, or perhaps he was just looking for pointers taken from life rather than from the silver sheet but whatever the case, "Harvard-peeper" makes a pretty logical combination. So just in the way of a suggestion, the Lounger asks that all Institute men pull down the shades before beginning operations, lest some advanced technique get down around Harvard Square.

### AS WE SEE THE MOVIES

#### METROPOLITAN

It may be that this pre-examination period has put us in an over-critical mood, but even were such a condition absent it would be evident to anyone attending the Metropolitan this week that there seemed to be a let down from the usual excellence of the program. Many of the stage numbers were fully as attractive as we have been before but they did not carry through with the snap which is usually characteristic of the entire program.

The production overture, as it is termed, was unusually poor, so much so in fact that the audience was thoroughly disgusted with its amateurishness. A "Life Picture" was tried again, but this time instead of being a thing of astounding beauty, as it has been heretofore, it developed as something which looked more like a double exposed film than anything we have seen.

"Wife Savers" the feature picture with Wallace Beery, Raymond Hatton, and Ford Sterling is a purely slap-stick comedy of war time adventure in the Alps. Hatton is a "shave-tail" second lieutenant while Beery is first an army baker, then a yodeling Swiss guide, and finally an unwilling husband. A great number of artificial situations are introduced into the picture for the sake of their expected humor, but the slap-stick variety of film gets tiresome even in a comedy when it is run to death. However, laughs are abundant even to the last when Beery arises from his slumber in a hay stack and discovers that he has hatched an entire family of baby chicks, whereupon he yells in consternation, "Ye gods!! I'm a mother!"

## THE TECH BOOK LIST

### A GEM OF LITERATURE

THE BRIDGE OF SAN LUIS REY, by Thornton Wilder. New York: Albert and Charles Boni. \$2.50.

Here is a second novel by that young novelist, Thornton Wilder. It follows his first novel, "The Cabala" and is equally as good as, if not better than, his first. The acclaim which critics have given the author seems to bear out the prophecies of a meteoric rise to fame.

"The Bridge of San Luis Rey" is a real masterpiece by all the standards by which we judge such works. In first place as a descriptive novel, it gives a remarkably fine picture of life and customs of a Spanish colony of two centuries ago.

The story is woven, as a beautiful tapestry, about the central pattern of the Bridge of San Luis Rey. The action takes place in Peru in the very early eighteenth century. The Bridge of San Luis Rey has just fallen plunging five travelers to their death. Near the Bridge lives a little Franciscan monk, Brother Juniper, who has long

held the belief that under the surface of early events lies a Divine plan. The fall of the Bridge brings to Brother Juniper the idea that here at last is chance to find that Divine plan—discover why those five of the countless thousands that daily cross the Bridge should have been the victims.

For six years Brother Juniper gathered information concerning the lives of the five unfortunates and finally his work was complete. Whether Brother Juniper ever did discover the plan a matter for the reader to decide, but the work was adjudged heretical and damned to be burned.

Thornton Wilder handles his theme with consummate skill, at all times exhibiting great finesse in playing the cards that reconstruct the lives of the five unfortunates. The characterizations are vital, and possess a certain poignancy that is life itself. "The Bridge of San Luis Rey" is veritably a polished gem of literature tinted with the author's benign sense of motives, and profound appreciation of spiritual values.

There seems to be no greater tribute this reviewer can give the book than to mention the fact that it is only book he has ever reread immediately after finishing it for the first time,—nor will the second reading be the last.

F. M.

Complete service and material in  
Concrete Reinforcement for

### AERONAUTICAL LABORATORY, DORMITORIES HOMBERG INFIRMARY

furnished by

EDWARD A. TUCKER COMPANY, BOSTON

Construction Engineers  
Concrete Reinforcement  
Removable Metal Forms

## The "Coop" January Mark Down Sale

### Neckwear

Fanch Silks

\$1.00 to .69 each

(3 for \$2.00)

\$1.50 to .95 each

\$2.00 to 1.35 each

\$2.50 to 1.65 each

### Shirts

\$2.00 to 1.50

\$2.50 to 1.95

\$3.00 to 2.25

### MUFFLERS

PAJAMAS

SWEATERS

20 PER CENT  
DISCOUNT

### Hosiery

\$1.00 to .69

(3 for \$2.00)

\$1.50 to .95

\$2.00 to 1.35

All Overcoats 20 Per Cent off  
All Suits 20 Per Cent off

Technology Branch, H.C.S.

## The Benjamin Chase Co.

Derry, New Hampshire

### MANUFACTURERS OF SPECIALTIES IN WOOD

LOOM REED RIBS      LOOM HARNESS SHAFTS  
LABELS FOR NURSERYMEN AND FLORISTS  
PLANT STAKES      TONGUE DEPRESSORS

John C. Chase '74, Treasurer

Samuel C. Prescott '94, Vice President

M. C. Mackenzie '14, General Manager

# TECH SHOW PLAYS IN NEW YORK FEB. 3

## 'HALF A MAN,' 1928 PRODUCTION, GOES ON VACATION TOUR

Show Concerns Student's Efforts to Disguise Himself From Four Detectives

### PREMIERE AT HARTFORD

"Half-a-Man," Tech Show 1928, makes its premiere bow Thursday evening, February 2, in Hartford, Conn., where, in Parsons Theatre, it expects to play before the biggest Hartford gathering in its history.

The Hartford Technology Club, through E. C. Alden its president, and H. M. Bacon chairman of the Tech Show Committee, working together with the Publicity Dept. of the Show, has already broadcasted the coming of "Half-a-Man" to Hartford, and the quick response to the announcements indicates that the S. R. O. sign will be in evidence when the curtain goes up for the overture.

After leaving Hartford, the Show will proceed on to New York to play in the Mecca Temple the following night, Friday, the 3rd. The facilities offered by Mecca Temple are superb, and following the performance, dancing will take place in the adjacent ballroom. Mr. Robert J. Marlow, who is taking charge of ticket sales in New York, is confident that everybody who saw "West Is East" last year, and stayed to dance afterwards, will be at the performance this year. Announcements have already gone out to the alumni within a 40 mile radius of New York, and tickets will be distributed as fast as the applications pour in. New York subscription, including the dance, will be \$4.50 for Orchestra seats and \$3.50 for the Dress Circle.

The book, by A. Parker Morrell '29, is pithy and clever. The efforts of the

Group of Tech Show's Fair Chorines Who Will Rouse Jealousy of Broadway's Best



hero to disguise his masculinity from the four "defectives" assigned to apprehend him, and at the same time to avoid the eager eyes of the boys and the suspicion of the girls, gives the chorus and ballet something to work on, and the songs and dances come spontaneously one after the other.

For slow, methodical engineers, the dancing is amazing. A pony ballet that can kick about its marks as well as it can kick about the stage could pass any course with ease and finesse. The sinuous Siamese Ballet winds itself in and about, tying itself into knots in intricate whirls, loops, and convolutions, and is a perfect justification for the return of the Ballet to Tech Show.

The chorus, well-drilled, clever on its feet as well as pretty to look at, bears its substantial burden well.

## 'TRANSPORTATION' IS THEME OF YEARBOOK

"Transportation" has been selected as the central theme of this year's *Technique*, the management of the yearbook has just announced. To symbolize this, there will be a three color opening section containing general illustrations portraying the various phases of transportation. This idea of a central theme is in continuation of the precedent established in the last volume.

Many changes for the better are being made in the makeup of the book. The features section will, for the first time in the history of the publication, have a plan; it will be run as a chronological history of the school year.

## Appoint Senior Endowment Committee With Robert J. Joyce '28 as Chairman

Edwards-Haldeman & Co. of Detroit Will Make Senior Rings

Announcement has been made by the Executive Committee of the Senior Class of the appointment of the Committee to take charge of the annual Senior Endowment Insurance Campaign. Robert J. Joyce will fill the position of Chairman, and will have for his assistants on the Committee, Allen S. Richmond, Gilbert J. Ackerman, Arnold A. Archibald, Peter H. Kirwin, and Alva H. Pearsall.

Immediately after the week of mid-term examinations, the Committee will start consulting the leading insurance companies to determine what will be the best policy for the class and the Institute this year. As yet nothing has been done on the matter of authorizing any concern to sell endowment insurance to the men.

After consideration of the offers of some of the most reliable jewelers, the Class officers have decided to give the contract for the manufacture of the Class rings to Edwards-Haldeman and Company of Detroit. The design will be practically identical with that of last year's ring except for a minor variation on the side which contains the beaver.

In order to achieve a greater uniformity in the Class ring it has been decided to have all of them of yellow gold with red stone. In these stones, there will be a choice of bloodstone, garnet, ruby, or sardonyx. Rings with either the bloodstone or sardonyx will be priced at \$12.50, with the ruby at \$16.50, and with the garnet at about \$16.00. At present, the plans are to put these rings on sale during the second week of the second term for a period of three days.

formity in the Class ring it has been decided to have all of them of yellow gold with red stone. In these stones, there will be a choice of bloodstone, garnet, ruby, or sardonyx. Rings with either the bloodstone or sardonyx will be priced at \$12.50, with the ruby at \$16.50, and with the garnet at about \$16.00. At present, the plans are to put these rings on sale during the second week of the second term for a period of three days.

## WHITING WILL GIVE SECOND OF CONCERTS

Many Changes Have Been Made in 1928 Volume

Arthur Whiting's second Technology's student recital of this year's series will be presented before an audience of the student body, corporation and faculty in Room 10-250 tomorrow at 8:15 o'clock. These concerts are sponsored by the Corporation with the idea of giving the students an hour of real music once about every two weeks.

Mr. Whiting will use the piano this time as his medium of interpretation of the music, but, contrary to his usual custom, will not be assisted by his troupe of accompanying artists. The program is one of classic and modern chamber music, in which Mr. Whiting will play some compositions from four of the most famous of European composers, Bach, Brahms, Debussy, and Chopin.

Before rendering each selection, he makes it a practice to give a short explanation of its musical theme so that his audience may grasp a better understanding of the composition.

### NOTICE

There will be a meeting of all *Voo Doo* Candidates and Staff Members in the *Voo Doo* office at five o'clock on Tuesday, January 17. Attendance imperative.

# Boit, Dalton & Church

## All Insurance

### 40 Kilby Street

BOSTON

MASSACHUSETTS

# PURDY & HENDERSON COMPANY

INCORPORATED 1901

## ENGINEERS

Building Construction

Consultation

Design

Inspection

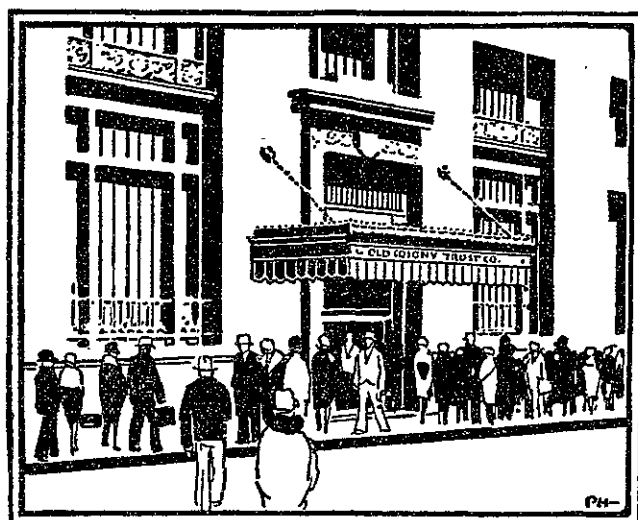
Administration

## Designing and consulting work for Architects a specialty

Vice President, N. A. RICHARDS, 1905  
Chief Engineer, HENRY V. SPURR, 1908

# OLD COLONY

## TRUST COMPANY



### The Bank of and for Technology Men



**OLD COLONY** as *the bank of Tech men* has on its staff the following who form an important part of its personnel:

FRANCIS R. HART '89 *Vice Chairman*

PHILIP STOCKTON '99 *President*

JAMES C. HOWE '02 *Vice President*

ARTHUR S. REED	'93	THOMAS E. CROSBY	'22
A. D. TADGELL	'05	EDWARD WINSLOW	'22
FRANK S. LOVEWELL	'09	GEORGE S. PARKER	'24
ARTHUR R. HOLT	'19	H. C. SWEET	'24
ELDRIDGE WASON	'20	FOSTER GLADWIN	'28



**OLD COLONY** as *the bank for Tech men* offers many facilities and conveniences which are of particular interest to them:

Its Uptown Office just across the Harvard Bridge, at the corner of Massachusetts Avenue and Commonwealth Avenue, is conveniently situated for the banking needs of Tech undergraduates :- It is only a few minutes' walk from the many fraternity houses which line the banks of the Charles and places at the disposal of Tech men all the facilities of New England's largest Trust Company.

## Latest of Building Projects Nears Completion---To Be Foremost of Flying World

Laboratory Is Constructed At An Approximate Cost Of \$230,000

(Continued from page 1)  
the need of a new building soon became evident.

All of the work of the Aeronautical Engineering Department will be carried on in the new building with the exception of engine testing, which will continue in its present location in Building 21. In addition to the present equipment of the department of Aeronautical Engineering new apparatus will be obtained from donations from other sources which are expected to follow the Guggenheim gift.

The building is of buff brick and limestone designed to conform to the architecture of the present buildings. It is 150 feet long, 60 feet wide, and three stories high in addition to a high basement. It will house two wind tunnels, a working museum, a library, drafting rooms, offices, locker rooms, rigging laboratory, research rooms, and a testing materials laboratory.

### Future Expansion Possible

The structure faces on Massachusetts Avenue and is placed within a few feet of Vassar Street, being the end of the proposed line of buildings, beginning with buildings 1 and 5. Projects to occupy intermediate structures are now under consideration, according to Dr. Stratton. In designing the building, consideration has been given to future expansion, and it will be possible to add a wing when the need arises.

Practically the entire basement will be occupied by the two wind tunnels, which are at present in one of the temporary wooden buildings. The smaller of these is four feet in diameter and was the first wind tunnel at Technology. It was built in 1908 when Professor Gaetano Lanza was carrying on aeronautical research. The

large tunnel, seven feet in diameter, in which it is possible to produce an artificial wind velocity of 70 miles an hour, was built in 1913 under the direction of Commander Jerome C. Hunsaker, U. S. N. Both of these are still in use.

As soon as the basement of the new building is ready, the large wind tunnel will be moved. It is expected that this will be done within a few weeks. A large opening has been left in one of the end walls and an attempt will be made to move the tunnel intact to its new quarters. Considerable difficulty will be encountered in accomplishing this, since the tunnel is almost as long as the new laboratory. In order to get it out of Building 20, where it is now housed, practically a whole end wall of the building will have to be removed.

### New Wind Tunnel Probable

For the present the smaller tunnel will not be moved. If funds can be procured, a new tunnel five feet in diameter will be built in its place. Otherwise the old one will be moved probably in the spring. When both of the wind tunnels are in place in the new building, practically the entire length and width of the basement will be occupied by them.

On the first floor will be a working museum, library, undergraduate drafting room, offices and locker rooms, access to which will be gained from entrances at the ends of the building. On the second floor will be a large rigging laboratory. The airplanes which are used by the present rigging classes are now in the hangar and will be removed to the new rigging laboratory in parts. Besides this laboratory there will be a drafting room, research rooms, and offices on the second floor.

Four laboratories will be on the third floor. One of these is to be used for the testing of materials used in the construction of aircraft. A new rib testing machine will be placed in this laboratory. It has not yet been decided whether this will be bought complete or designed and built at the Institute. In the past all testing of materials has been done in the regular mechanical engineering testing materials laboratory.

The remainder of the third floor will be occupied by two classrooms, a laboratory devoted to studies of flight test instruments, and a large drafting room for graduate students. Skylights will give excellent natural light for drafting and research work on this floor. A large platform will be built on the roof and will be used for demonstrating and testing flight instruments.

### Wind Tunnels Fill First Floor

A large amount of space on the first and street floors will be taken up by the wind tunnels, which are of such a height that they will extend up through these floors from the basement. Space enough for only a few rooms will be available on the street floor, since the entire width of the building will be occupied by the tunnels. The smaller tunnel will reach to the ceiling of the first floor while the larger one will rise one story higher to the third floor. The only space that will be left on the street floor will be at either end of the building near the entrances. There will be no corridor on this floor.

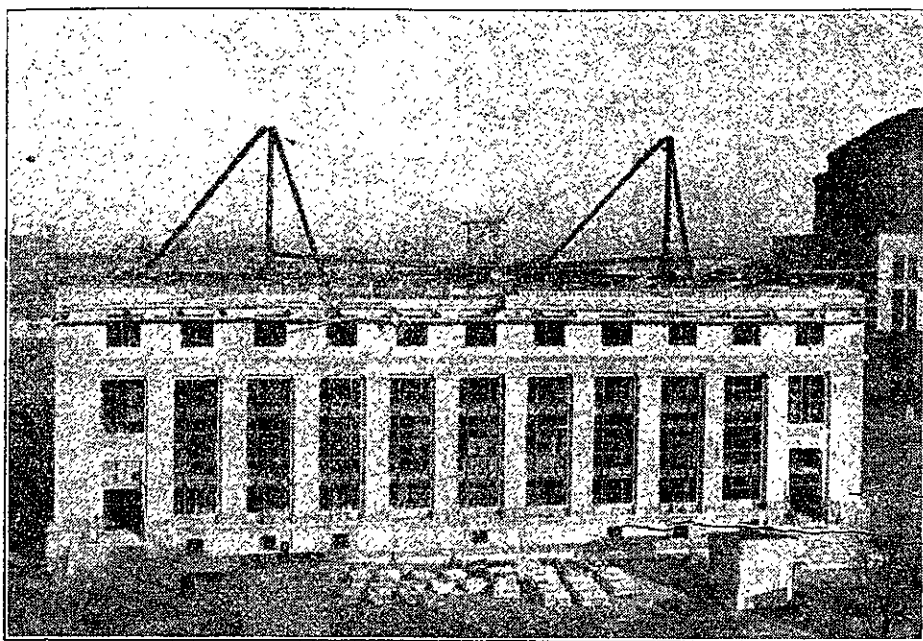
Almost half of the floor space on the first floor will be lost on account of the large tunnel. The space left, however, will be large enough to allow a line of rooms on the Massachusetts Avenue side of the building and a corridor running the entire length of the building between them and the wall of the wind tunnel room.

Provision has been made for taking apparatus in and out of the building through large doors which have been provided in the back of the basement, and at the Vassar Street end of the second and third floor.

Weather conditions have permitted the construction work on the new laboratory to progress rapidly so that at the present time very little remains to be done on the exterior. The front is practically finished and the windows are being put in place. The steps leading up to the entrances are as yet incomplete. Work on the roof will be completed in a short time. This along with the cement work on the ends of the building will complete the exterior work. Although quite a large amount of work remains to be done on the inside of the building it is expected that it will proceed rapidly.

Equipment of the new building will begin as soon as the interior is finished. By the end of the second term the Aeronautical Department expects to be moved into its new quarters. If the work progresses as rapidly as is expected, the formal dedication of the Daniel Guggenheim Aeronautical Laboratory will take place at Commencement. The date has not yet been definitely set but it is hoped that the building will be ready for the ceremonies at this time.

## Gift of Guggenheim Foundation Now Under Construction—New Aeronautics Laboratory



## Fraternity Initiations at Bowdoin Are Governed by Student Council Ruling

### Interference With Studies Is Reason for Imposing Restrictions

During the past few years at Bowdoin the interference of fraternity initiation stunts with the studies of the freshman pledges has become a serious matter. The subject was taken up by the Student Council a short time ago and resulted in the making of certain rules to which every fraternity is now bound.

1. No fraternity shall cause its freshmen to remain out later than 12 o'clock more than one night during pre-initiation period (three weeks previous to initiation.)

2. No freshman shall be kept at fraternity activities other than initiation ceremony itself later than 10 o'clock on any night with above exception, nor later than 8:30 o'clock on any night preceding an hour examination.

3. It shall be the duty of each fraternity to distribute its curriculum requirements (such as memorizing fraternity songs, rolls, and other matters) over a period of at least three weeks and in a manner alleviating any possible interference with freshman study.

4. If the above rules are not adhered to the Student Council will recommend to the Faculty that suitable punishment be imposed.

## NEW PLAY WRITTEN BY MATHEMATICIAN

Has Three-Foot Shelf Full Of Articles Published In Past Thirty Years

(Continued from page 2)

in a book publishing company accumulating data for a treatise deducing methods of increasing the efficiency of such establishments. This voluminous manuscript was subsequently written but has remained unpublished because of the inclusion of a small amount of mathematics which would not be understood by a layman publisher or printer. Numerous other journals and books rested on the shelf containing poems, plays, and sundry articles which he has written in the past thirty years. A Technology song which he wrote in 1906, and which was published in the *Technology Review* at the time is particularly interesting. The music for this song has never been written.

On remarking about his most recent play Professor Passano stated, "It is most immoral, most immoral." I was inclined at the time to be rather skeptical about this assertion, having lived in Boston for two years, but, having read it since, I have become quite thoroughly convinced of the veracity of the statement.

The play is one of three acts depicting, in a satiric manner, American life in general and the modern American flapper in particular. The characters carry the names of the ancient Greek gods and goddesses but in every other way are most exceedingly modern. It is a play which can be classed as interesting because it is different. Forty-five minutes suffice to read it and it is improbable that it would take the standard amount of time if produced.

## KNOX & ALLEN

160 Broadway, New York  
John H. Allen '81  
Consulting Metallurgist

The largest selling quality pencil in the world.

**VENUS**

17 black degrees  
3 copying  
At all dealers  
Buy a dozen

Superlative in quality, the world-famous **VENUS PENCILS** give best service and longest wear.

Plain ends, per doz. \$1.00  
Rubber ends, per doz. 1.20

American Pencil Co., 215 Fifth Ave., N.Y.  
Makers of UNIQUE Thin Lead Colored Pencils in 12 colors—\$1.00 per doz.

## RADIO

is just a specialized branch of the general art of communication.

It follows the regular laws of Physics, Electrical Engineering and associated sciences.

Apparatus and equipment for use at radio and audio frequencies should be designed by the physicist and the electrical engineer with a specialized knowledge of radio problems.

The engineering and development staff of this company has been built up on just such a basis. For over a decade its apparatus has been used extensively in the country's leading radio, telephone and educational institution laboratories.

## General Radio Co.

Manufacturers of  
Electrical and Radio Laboratory Apparatus  
State, Front and Windsor Sts.  
CAMBRIDGE, MASS.

## NOT SO LOUD!



BEN: "I thought your gang was going to 'bid' Joe Goofus."

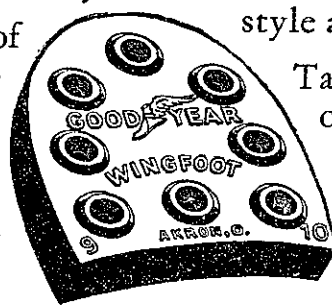
HEN: "We were, till we found he still carried a whip-socket on his dashboard and wore hard heels."

MANY a man has found a better place to advertise than on the heels of his shoes. The clickety-clack, "here-I-come," "there-I-go" noise of the cowhide heel is one big reason why rubber heels have the call today.

And the growing popularity of rubber heels is a growing opportunity for Goodyear. A bigger opportunity because more people walk on Goodyear Wingfoot Heels than on any other kind.

Have you ever stepped out on Good-year Wingfoot Heels? If you have, you know they cushion away all the shocks and jars of walking. They wear like a "frat" pin. And their trim, close-seating design makes them good style anywhere.

Takes your shoe repairman only a minute to put them on. How about new Goodyear Wingfoot Heels today?



**GOODYEAR**  
Copyright 1928, by The Goodyear Tire & Rubber Co., Inc.  
**WINGFOOT**

# INTEREST IN TRACK HAS INCREASED

## Individual Performances of The Engineer Leaders Have Helped in Advance of Sport

By Oscar Hedlund  
Track Coach of Technology

Track at Technology has been one of the major sports for a good many years and has had the greatest number of men report for exercise during these years. It probably has done more for the individual in the sense of competition, in creating competitive powers for future life. The competition in track creates for the individual, work which is done by himself only, not with the assistance of other members of the team. By this men who have been in track have been of great value in the business world when it comes to initiative powers.

Since 1924 the numbers have increased considerably at the Track House and with the growing attendance the teams have shown better in their dual competition. In that year the Engineer relay team won the Technical College relay at Penn and were thirteenth in the New England Intercollegiate. At that time George Leness established a New England record of 1.55, breaking a record made by Tabor in 1915. He also ran second in the I. C. 4 A which was won by Marsters in 1.53. In the Cross Country season the varsity team scored in tenth place in the I. C. 4 A and thirteenth place in the New England championship. The Freshman Cross Country team scored third place in the I. C. 4 A. Since that time the Cross Country teams have improved considerably. In 1925 the Cross Country team improved their position greatly by scoring second place, Bates winning that year. The Freshmen showed well and in their race against Brown freshmen, ran a dead heat. Tech men finishing across the line at the same time, something that does not happen very often in Cross Country. In the New England championships the

Freshmen won the championship that year and McClintock was the individual winner making a new record for the course. At the I. C. 4 A the Varsity team finished seventh place and the Freshmen fourth.

### Win New England in 1926

During the winter Leness won the 600 yard special at the K. of C. games, making a new record for the track of 1.17 1-5. The relay team won from Brown at the B. A. A. games. Technology won from Harvard and Edward Chute secured second place in the 1,000 yard handicap. In the spring the Cardinal and Gray finished third in the Medley championship race and second in Class B championship. Technology had its usual dual meets, but with Cornell we secured nine first places out of fifteen and tied one. This was a very good showing against the Cornell boys as they have been one of the leaders in the intercollegiate competitions. For the climax of the season Technology won the New England championships and ended the season in glory.

The Cross Country season of 1926 was fairly successful and in the New England intercollegiate the Varsity team finished third and the Freshmen fifth. McClintock scored second place in the Varsity race. At the I. C. 4 A in New York both teams scored fifth

Coach of Technology  
Track Team 1924-28



Oscar Hedlund

place in their respective races.

The indoor season started at the K. of C. games with Leness winning the second leg and becoming permanent owner of the Bishop cup. Technology won the relay race against Brown and Marshall Fay finished third in the final heat of the 600 yard handicap. Harvard won from us in the relay at the B. A. A. games. In February George Leness made a new A. A. U. 600 yard record at the championship games in New York of 1.13 1-5. Spring started with the athletes making new records in various events.

McCarthy made a new Javelin record of 176 ft. 10 inches, and Hank Steinbrenner established two new records in the 120 highs and 220 lows of 15 2/5 and 24 3/5. These records were made against Harvard in our dual meet. Weibe also made a new record in the broad jump of 22 ft. 7 3/4 inches. At the Penn relay games at Philadelphia Steinbrenner won the 120 yard international high hurdle race and established another new record of 15 1/5 for the Institute. The relay team took second place in Class B championship.

At the Cornell meet Steinbrenner was the star, scoring thirteen points for an afternoon's work, winning the 220 lows, 220 yard dash, and second in the 120 highs. With all his efforts we lost to Cornell. Weibe equalled the school record of 10 1/5 in the 100 and in the half Ken Smith and Fay secured first and second, establishing a new dual meet record of 1.58 1/5 seconds.

At the New England championships the Beavers took third place and again new records were established. Steinbrenner equalled the New England high hurdle record of 15 1/5, a record which has stood since 1916. In the 220 yard low hurdles he established a new record of 24 flat. At the I. C. 4 A only two athletes competed. They were Steinbrenner and Ken Smith. Steinbrenner won the 220 yard low hurdles and again established a new institute record of 23.9. Smith qualified for the final heat of the 880 and scored fifth place. Steinbrenner during this year of collegiate competition ran

twelve races and won eleven of them, which is probably the greatest record any Technology athlete has ever established in one season.

The season of 1927 started with the usual Cross Country meets and after a fairly successful season we scored second place in the Varsity Cross Country and second place in the Freshman race. At the I. C. 4 A at New York we scored fifth in the Varsity and sixth in the Freshman.

The real season of 1927 will start at the K. of C. games January 28th and will give the boys a chance to prepare for the spring season. In the 40 yard dash the men will probably show the best will be Barbour, Edlund and Jandrice as Varsity men. Freshmen probably will be Broeder, Leadbetter and Persion. In the 600 we will probably have a number of Varsity men and it will not be known until after the relay trials on the 21st. Freshmen entered for the 600 will be Moss, Baltzer, McNiff, and Harvey. Baltzer was the Cross Country champion last fall and certainly should be an addition to the track team next year as a Varsity man.

In the 1,000 yards the majority of men entered will be Cross Country men so as to establish speed for the coming spring events. Kirwin, captain of the Cross Country team, with Perry, Mitchell, Herbert, Allbright, Worthen, and Austin will probably be the men entered in the 1,000 yards. Austin has fully recovered from his injury which happened this fall and probably will be running better than ever.

## SUCCESS

in business depends to a great degree upon the forming of proper banking connections.

### The State Street Trust Company

BOSTON, MASS.

is a strong, progressive bank, with many years' experience which it is glad to put at the service of its clients.

Main Office—Cor. State and Congress Streets

Copley Square Office: 581 Boylston Street

Massachusetts Ave. Office: Cor. Mass. Ave. and Boylston St.

SAFE DEPOSIT VAULTS AT ALL OFFICES

MEMBER FEDERAL RESERVE SYSTEM

# THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

## CAMBRIDGE, MASSACHUSETTS

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY offers Courses in Engineering and Science, each of four years' duration, leading to the degree of Bachelor of Science in:

Aeronautical Engineering  
Architectural Engineering  
Biology and Public Health  
Building Construction  
Chemical Engineering  
Chemical Engineering Practice  
Chemistry  
Civil Engineering

Electrical Engineering  
Electrochemical Engineering  
Engineering Administration  
General Science  
General Engineering  
Geology  
Industrial Biology  
Mathematics

Mechanical Engineering  
Metallurgy  
Military Engineering  
Mining Engineering  
Naval Architecture and Marine Engineering  
Physics  
Sanitary and Municipal Engineering

The Course in Architecture is of five years' duration, and leads to the degree of Bachelor in Architecture. A five year Cooperative Course in Electrical Engineering leading to the degrees of Bachelor of Science and Master of Science is also offered.

Graduate Courses leading to the degrees of Master of Science, Master in Architecture, Doctor of Philosophy, Doctor of Science and Doctor of Public Health are offered. The Courses leading to the degree of Master of Science include Cooperative Courses in Chemical Engineering Practice and Fuel and Gas Engineering.

The better high schools and other preparatory schools in the United States offer adequate preparation for the required entrance examinations given by the College Entrance Examination Board in June, or by the Institute in September.

Graduates of colleges or of scientific schools of

collegiate grade, and in general all applicants presenting satisfactory certificates showing work done at another college corresponding to at least one year's work at the Institute, are admitted, without examination, to such advanced standing as is warranted by their previous training.

The Summer Session extending from June to September includes most of the subjects given during the academic year and in addition special courses for teachers.

Any of the following publications will be sent free upon request:

Catalogue for the Academic Year (which includes the admission requirements).

Summer Session Catalogue.

Graduate Study and Research.

Correspondence should be addressed to The Massachusetts Institute of Technology.

# REYNDERS STARS FOR THE BEAVER QUINTET

Wrestlers Triumph as Fencers and Swimmers Bow to Their Opponents

## Accounts For 13 Points But Basketball Team Fails To Hold Down Invaders' Score

After trailing Wesleyan 22-14 at the half, the Cardinal and Gray basketball team made a gallant attempt to tie up the score and clinch a victory in the early part of the second in the game played at the Hangar gym on Saturday night. After bringing the tally to 27-25 in favor of the visitors, the latter suddenly rallied, shot a few more baskets and finished with a safe margin of 35-26.

Both squads played a hard, fast game throughout the entire contest. The passing and general team work was a feature in itself and incidentally was about the best that has been seen at the Hangar this year. Wesleyan played a "heads-up" game and time after time turned intercepted passes into accurate shots at the hoop. The Engineers likewise were good on the defense but they could not seem to put over the winning tallies.

Johnny Reynders was the outstanding star of the Institute team, being responsible for half of the Technology scoring. In the course of the evening he caged the ball six times for a total of twelve points and then added one to this number on a free shot. Bradshaw played a sensational game for the visitors accounting for fifteen points.

**Allen Starts Scoring**  
Brig Allen started off the scoring early in the first period on a free try, and a few minutes later Reynders slipped through the opposition for two more points. Van Cott deadlocked the score on the next two plays. Bradshaw then continued the attack for Wesleyan. When the first half ended the score was 22-14 and prospects for a Beaver victory looked slim.

With the opening of the second half the Cardinal and Gray players seemed to have taken on a new lease of life. They passed and dribbled through the visitors defense until within two points of tying the game. Reynders and Allen were playing a great game on the forward line as was Captain Norm Estes at guard. Then with the game practically within their grasp, the Engineers wavered just long enough for Wesleyan to regain their poise and ward off defeat.

Before the Varsity game, the yearlings were downed by Cambridge Latin 29-16. The school boys played a very good game and took advantage of the comparative inexperience of their opponents. Clancy at right forward was responsible for 15 of the 29 point total. Kamy played a good game for the frosh.

Summary of the Varsity game:

WESLEYAN			
	gls.	fls.	pts.
Van Cott, r. f.	3	2	8
Lockwood, r. f.	0	0	0
Ward, l. f.	2	2	6
Spaulding, l. f.	0	0	0
Bradshaw, c.	7	1	15
Millsporough, c.	0	0	0
Sanders, r. g.	1	0	2
Travis, l. g.	1	2	4
Totals	14	7	35

M. I. T.			
	gls.	fls.	pts.
Lawson, l. g.	0	0	0
Nelson, l. g.	0	0	0
Estes, r. g.	1	3	5
Brockelman, c.	1	1	3
Allen, l. f.	1	1	3
Bates, l. f.	1	0	2
Johnson, l. f.	0	0	0
Reynders, r. f.	6	1	13
Totals	10	6	26

## FROSH WRESTLERS ANNEX EASY WIN

### Trounce Weak M. C. O. Team At Hangar Gym By 23-3 Margin

The frosh wrestlers had little difficulty in downing the Massachusetts College of Osteopathy at the Hangar gym on Saturday evening. The visitors were unable to muster their full strength bringing only two men to the meet. Six bouts were scheduled and as a result, four went by default to the Engineers. The official score was 23-3.

Two bouts were staged however and both proved interesting to the spectators. In the 135 pound class, Snow of the Cardinal and Gray downed Merrill of M. C. O. after a see-saw battle. Snow was given the judges' decision. In the 158 pound class Gammon of M. C. O. reversed the tables by downing James of Technology. He proved too much for the frosh and took the decision. George Myerson of Cambridge refereed the bouts.

## FRESHMEN LOSE TO EXETER MERMEN 56-6

Exeter's fast swimming team proved more than the equal of the Beaver cubs in the meet held at Exeter on Saturday. The prep school boys finished on the long end of a 56-6 score. They took both first and second place in the six individual events and breezed home a winner in the relay.

Captain Savage took first in the 50 yard and, swimming anchor man on the relay, was first to finish. His teammate Osborne carried off the honors in the 100 and 200 yard events. Fowler gave a very neat exhibition in the dive. MacKay, McMinn, and Lutz were the best Technology entrants.

A student of Columbia University has a novel way of earning his way through college. He is the official worm supplier of the zoology department, and sells the students angle worms at 20 cents a dozen.

## Boston Foilsmen Snatch 5-4 Win From Engineers

### Cardinal and Gray Shows Good Form, But Lacks Spirit of B. U. Outfit

Technology's fencers went down to defeat in the first match of the year at the hands of Boston University on Saturday by a 5-4 score. The teams were well matched and the result was in doubt up to the final bout. The Terriers appeared to force the going throughout, and this perhaps more than anything else was responsible for their victory. On all around swordsmanship the Engineers appeared better able to handle themselves.

Unfortunately the meet on Saturday was probably the last one that Captain Harris will compete in, under the Institute colors. He is leaving school this week and will not return until next Fall. His loss will be felt seriously by the team. In his last contest he broke even, losing the opener to Lavine of B. U., and then trouncing Wolfson 5-0.

Carlos Ferre was the high scorer for the Engineers, winning both of his matches by decisive scores. He defeated Suck 5-0 and Wolfson 5-0. Lavine was high scorer for Boston, taking three matches, the first against Harris, the second against Lester and the third against Harrison.

**The Summary:**  
Lavine, B. U., defeated Harrison, Tech, 5-1; Woolfson, B. U., defeated Lester, Tech, 5-4; Suck, B. U., defeated Krantz, Tech, 5-3; Lavine, B. U., defeated Lester, Tech, 5-3; Harris, Tech, defeated Woolfson, B. U., 5-0; Ferre, Tech, defeated Suck, B. U., 5-0; Lavine, B. U., defeated Harris, Tech, 5-3; Ferre, Tech, defeated Woolfson, B. U., 5-2; Lester, Tech, defeated Pierce, B. U., 5-3.  
Score—Boston University 5, M. I. T. 4.  
Director—Charles H. Black.

## LOSS IN RELAY COSTS MEET TO NATATORS

Worcester Tech's swimming team nosed out the Engineer swimmers 35-27 in a fast and close meet at Worcester Tech Saturday. This was the first swimming meet that Worcester Tech has ever had, but they have several of the best swimmers in New England as well as a well balanced team. As in the Amherst meet, it remained for the relay to decide the winner as the score stood 27-27 at the beginning of the relay.

At the opening of this event Holcombe gained about a yard on Brown and this lead was too much for the engineers to overcome although they did their best to do so. Larson the wind up man added a little to this, but he finished only a bare two yards ahead of Luey. The engineers are handicapped in having to use a number of 440 men as dash men.

Two more Technology records were shattered when Jarosh clipped five seconds off the record he made in the 440 last Saturday and Luey lowered the old 150 yd. back stroke record by two seconds. Jarosh crossed the line in 6 minutes 4 1/5 seconds and Luey finished in 2 minutes and 1/5 of a second.

As was expected, Worcester took all the dashes, the diving and the breast-stroke. Although the engineers have two good breast stroke men, they could do very little against Larson who is rated as the best breast stroke in New England. As usual the engineers walked off with the 440 and the back stroke with ease. In spite of the fact that they lost the meet the engineers made a very favorable showing.

## YEARLINGS SHATTER TWO TRACK RECORDS

### Large Number Turn Out For Handicap Meet

Two freshmen records are shattered Saturday afternoon in the handicap track meet when Philip Benjamin jumped 5 ft. 9 3-4 in. from scratch breaking the former record of 5 ft. 8 1-3 in. and Bror Grondal threw the 12 pound shot 45 ft. and 2 in. to smash the record of Fred Glantzberg of 45 ft. made two years ago. This mark may not stand as the shot was not weighed before the meet, and when the record was made it was found to be underweight.

Marshall Fay, 29 took the 330, running from the four yard mark in the feature race of the day. All the relay candidates were in this race and they were under a blanket all the way. Barbour '28 was on scratch, but could not pass the bunch and had to be content with a fourth.

Barbour took the 40 in 5 seconds and was rather closely followed by Earle '29. The time was 5 seconds. Thosen took the mile in 4 minutes and 47 seconds. Holmes came in second and Moody was third. Barrington walked off with the low hurdles and was closely followed by Barbour. The time was six seconds.

Hardy won the high hurdles with Costello second, the time being 6 3-5 seconds. Herbert took the 1000-yard run with Semple second in 2 minutes 31 3-5 seconds.

## Anticipating California's Future Growth



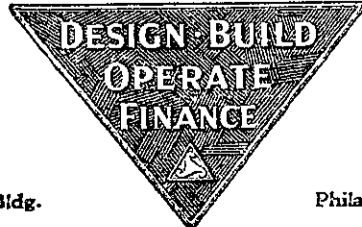
To meet the growth in California, the Southern California Edison Company added 429,000 horse power between 1921 and 1925. This increase is 114% compared with 54% for the whole country in the same five-year period.

The company's present capacity is 807,000 horse power and another five years' growth at this rate will see a demand of 920,000 horse power more.

A new plant now under construction will have the world's largest electric generators, the world's largest tandem compound turbines and the world's largest horizontal water tube boilers. It is designed for an ultimate capacity of 1,000,000 horse power.

This is the sixth time Southern California Edison Company has employed Stone & Webster construction service in its program of extension.

## STONE & WEBSTER INCORPORATED



Boston, 49 Federal Street  
New York, 120 Broadway  
Chicago, First National Bank Bldg.

San Francisco, Holbrook Bldg.  
Pittsburgh, Union Trust Bldg.  
Philadelphia, Real Estate Trust Bldg.

## A "passing mark"—and more!

The Jenkins "Diamond" on a valve is a mark that means more than "passing." It is the sign of a valve which has proved its worth in rigid tests before it leaves the factory—tests which allow a wide margin of safety. Jenkins thoroughness in manufacture begins with the metal, which is analysed-checked by metallurgists. The castings for body, bonnet and other parts are sound, flawless—kept so by an elaborate system of inspection; the machining is precise; the assembly is done with painstaking care.

Jenkins valves are made for practically every power plant, plumbing, heating and fire protection requirement.

### JENKINS BROS.

80 White Street.....New York, N. Y.  
324 Atlantic Avenue.....Boston, Mass.  
134 No. Seventh Street.....Philadelphia, Pa.  
616 Washington Boulevard.....Chicago, Ill.

### JENKINS BROS., LIMITED

Montreal, Canada London, England



**D**WIGHT P. ROBINSON & COMPANY has had many years experience in design and construction work. The knowledge gained from this past experience is constantly broadened by intimate contact with a large volume of work now being done for which new ideas and methods must be continually developed.

Dwight P. Robinson & Company offers complete engineering and construction service. Any portion of this service is available; preparation of plans (except architectural) and engineering advice or construction under the direction of the owner's architect or engineers; also reports, appraisals and economic studies of plant problems.

The activities of the organization cover a wide range and include as typical items the following:

## BUILDING CONSTRUCTION

Hotels	Apartment Houses
Theatres	Warehouses
Office Buildings	Newspaper Plants

## INDUSTRIAL PLANTS

Sugar Refineries	Foundries
Smelters	Textile Mills
Lead Plants	Chemical Plants
Fertilizer Plants	Pipe Lines and Pumping
Lumber Mills	Stations
Tanneries	Filtration and Disposal
Shops	Plants
Steel Mills	Harbor and Dock
Boiler Plants	Works

## RAILROAD WORK

Railroad Shops	Locomotive and
Freight Terminals	Passenger Terminals
Electrification	Coaling Stations

## POWER

Steam Power Stations	Substations
Hydro-Electric Developments	Transmission Systems

Sixty per cent of the business done by this company consists of repeat orders from clients previously served.

There is no better recommendation than a satisfied client.

## DWIGHT P. ROBINSON & COMPANY

INCORPORATED

## ENGINEERS AND CONSTRUCTORS

CHICAGO

NEW YORK

LOS ANGELES

MAXIMUM RETURN TO CLIENTS PER DOLLAR INVESTED

# POWER PLANT FURNISHES HEAT, LIGHT, AND POWER FOR THE ENTIRE INSTITUTE

## ONE SMALL BOILER AND THREE LARGE ONES ARE UTILIZED

These Need Nearly 70 Tons of  
Coal Per Day During  
Winter Months

## USE ONLY HIGH-TEST FUEL

Variation in Power Demand  
Is Biggest Problem to  
Overcome

One of the outstanding features of the sky line of the Institute, and of Cambridge as well, is the huge smoke-stack of the Technology Power Plant. While it forms a less attractive and less distinctive feature of the outline of the buildings, it is much more important to the existence and operation of the Institute than the familiar dome of building 10.

Not that the stack itself is so important, but rather the equipment which makes it necessary, and the Power Plant whose site it marks, is all important in the upkeep of the building. This Power Plant furnishes not only heat, but light and power to the entire group of Institute buildings.

Since there is no drain other than the power used in the Institute buildings the plant must be adaptable to wide variations of demand. During the summer and on Sundays and holidays the power consumption is very low, while in winter when classes are in full swing a maximum demand must be met.

### Plant Has Four Boilers

In order that it may meet this varying demand with the greatest possible efficiency the plant is equipped

with one 270 horse power and three 520 horse power boilers. Only one of the large boilers is kept in operation at times of minimum demand, and when the maximum output is required two of the large boilers, and the small one, are used. In this way one of the large boilers is always held in reserve for emergency use. These boilers furnish the steam to turbines which are directly connected to one direct current and three alternating current generators which supply the Institute with electricity.

Each of the boilers is equipped with a Riley self-dumping stoker. These have motor driven plungers which feed the coal into the grate from the bottom of the stoker bunker. In turn, these bunkers are automatically filled by a travelling lorry which holds about two tons. This moves along in front of the boilers and fills the stoker bunkers. The equipment assures uniformity of operation of the boilers, which is an important factor in obtaining the greatest possible efficiency.

### Complete Combustion Obtained

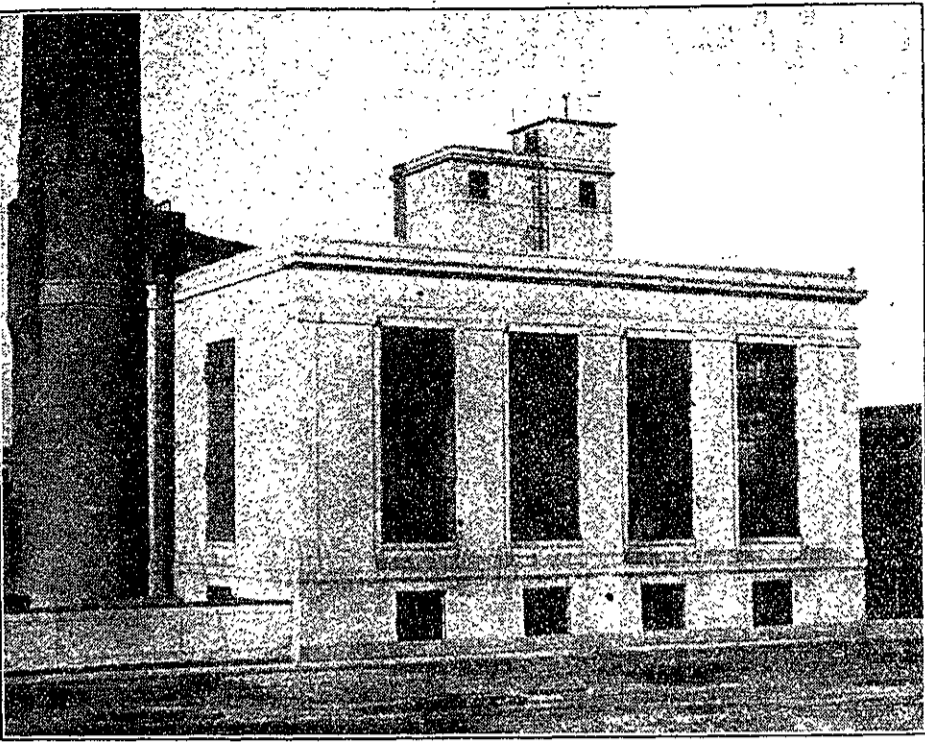
Specially designed grates and an over-feed air pressure which can be regulated so that excess air is prevented from blowing through the partly burned fuel make possible the complete combustion of the coal without loss of volatile matter. This feature adds to the boiler efficiency of the plant and, at the same time, prevents smoke.

Although the power plant is equipped with a railroad siding the coal is almost always received in truck deliveries. This method of delivery has been found more convenient in the handling of the fuel because trucks bearing the coal can dump it directly into a pit provided for the purpose outside of the power house. If rail deliveries were made either a special equipment or handling would be necessary to get the coal into the pit.

### Bunker Holds 300 Tons

From the pit the coal goes to a Stephens Adamson Crusher which makes it of uniform texture, so that it can be easily handled by the stokers. It is then picked up by a bucket conveyor which takes it to a bunker located on top of the boiler house, from which it can be easily fed to the travelling lorry. This bunker has a capacity of three hundred tons, so that the coal

Side View of Technology Power Plant,  
One of Features of Cambridge Skyline



may remain in it for as much as a week, or sometimes even longer. During this time it has an opportunity to dry out, and as a result greater efficiency is obtained.

Since the plant uses between 65 and 70 tons of coal per day during periods of heavy consumption the matter of fuel is of particular importance, for although the small consumer might not notice the difference in heat value of two coals when more than ten thousand tons are burned, the difference becomes readily noticeable.

Although the boiler equipment can be adjusted to use any grade of coal, experience has shown that the highest grade gives the greatest efficiency in the end. For this reason when making the contract for the year's supply samples from various dealers are carefully tested. The coal is analyzed in the Institute laboratories and this year the one selected showed 1.14 percent moisture, 4.39 percent ash, 0.29 percent sulphur, 19.69 percent volatile matter, and 74.78 percent carbon.

This coal, which is sold by the name of Capertons New River coal, could not be clinkered, and the contract for 12,000 tons of it was awarded to the Stetson Coal Co. As might be expected, such coal is much more expensive

than many other coals of very good quality, but officials of the power plant have found that the use of the best obtainable fuel was most economical in the end.

## INSTITUTE MASCOT CHOSEN BY ALUMNI

Select Beaver as Typifying  
Spirit of Technology

(Continued from page 1)

mal considered was the kangaroo because like Technology it advances with leaps and bounds and, like Dr. MacLaurin, has Australia for its birthplace. The elephant with its qualities of wisdom, patience, and strength was also thought well of but most especially because like all men who graduate from the Institute it has a tough hide. Neither of these are American animals, however, so the committee turned, Mr. Gardner said, to Hornaday's book on North American animals, and it was the account of the beaver so given in this volume that decided them: "Of all animals the beaver is the most noted for its engineering and mechanical skill as well as for its habits of industry. His habits are nocturnal. He does his best and most efficient work in the dark."

Thus the beaver became the official mascot of Technology and Technology men throughout intercollegiate circles, and today the distinguishing mark of an Institute man in a gathering of men of all colleges is the grey beaver hat that he invariably wears on such occasions.

### Buildings

### Power Plants

—Steam

—Water

—Electric

### Appraisals

### Investigations

### Reorganizations

## Industrial

### Engineers and Architects

**CHAS. T. MAIN, Inc.**  
BOSTON, MASS.

# COAL

Specialists in highest quality

## BITUMINOUS

and superior household

## ANTHRACITE

DELIVERIES IN GREATER BOSTON

PURVEYORS TO M. I. T.

## THE STETSON COAL CO.

496 FIRST ST.

SO. BOSTON, MASS.

Est. 1836

# STETSON

EVERETT MORSS '85  
President

HENRY A. MORSS '93  
Treasurer

## SIMPLEX WIRES AND CABLES

**SIMCORE**—National Electrical Code Standard. Every length is subjected to searching electrical tests to insure a first quality product. Ask for specifications.  
**CAOUTCHOUC**—"B.C." A rubber covered braided wire insulated with a 30% Para compound. Send for specifications.  
**LEAD COVERED CABLES AND WIRES**—For underground distribution where a conduit system is used.  
**STEEL TAPED CABLE**—Used where a conduit system is not available. It carries its own conduit. Descriptive booklet upon request.  
**CONDEX PARK CABLE**—Adequately insulated and protected by an overlapping, interlocking flexible steel conduit. For series lighting circuits.  
**OVERHEAD SERVICE CABLE**—Designed for use between pole and house where service is not carried underground.  
**FIBREX OVERHEAD SERVICE CABLE**—For aerial service connection from pole to house when service must pass through trees.  
**FIBREX TREE WIRE**—For installation among trees or where chafing may occur. It is non-inductive. Send for circular.  
**FIBREX FIRE ALARM CABLE**—Consists of a multiple conductor cable protected with the abrasion resisting fiber tape which protects FIBREX Tree Wire and FIBREX Overhead Service Cable.  
**SUBMARINE CABLES**—For power transmission or for telephone or telegraph service. Our engineering department is always available for consultation.  
**SIGNAL CABLE**—Dependable insulated cable for railway signals and police or fire alarm service.  
**IGNITION WIRES**—Used extensively, and with satisfaction throughout the automotive field.  
**TIREX PORTABLE CORD**—For electrical tools and appliances. Rubber-armored. Flexible. It cannot kink—and has the wearing qualities of an automobile tire.  
**TIREX SJ CORD**—A rubber armored cord for drop lights or table lamps; made in colors. Send for folder.  
**TIREX MINING MACHINERY CABLES**—Heavily insulated, rubber-armored, portable cables with the wearing qualities of a cord tire.  
**POLE FIXTURE CABLE**—For wiring from the base of ornamental lighting standards to the lamp fixture at the top or from line to lamp on goose neck fixtures.  
**ARC CABLE**—For connecting swinging arc lamps with transmission lines.  
**AUTOMOBILE**—Wires and cables for lighting and ignition systems.  
**RUBBER INSULATED CABLES**—For any commercial voltage. Special descriptive bulletin on request.  
**CAMBRIC INSULATED CABLES**—For power transmission service, submarine, underground or aerial. Special bulletin on request.  
**PAPER INSULATED CABLES**—For high voltage power transmission. Descriptive bulletin upon request.  
**SPECIAL INSULATED WIRES AND CABLES**—To meet any conditions of service. On specification drawn by our engineers or to conform to customers' specifications.

Technically trained experts who know how to impart the qualities which insure satisfactory service supervise the manufacture of all Simplex Wires and Cables.

## SIMPLEX WIRE & CABLE CO

Manufacturers

201 DEVONSHIRE ST., BOSTON

Chicago San Francisco New York

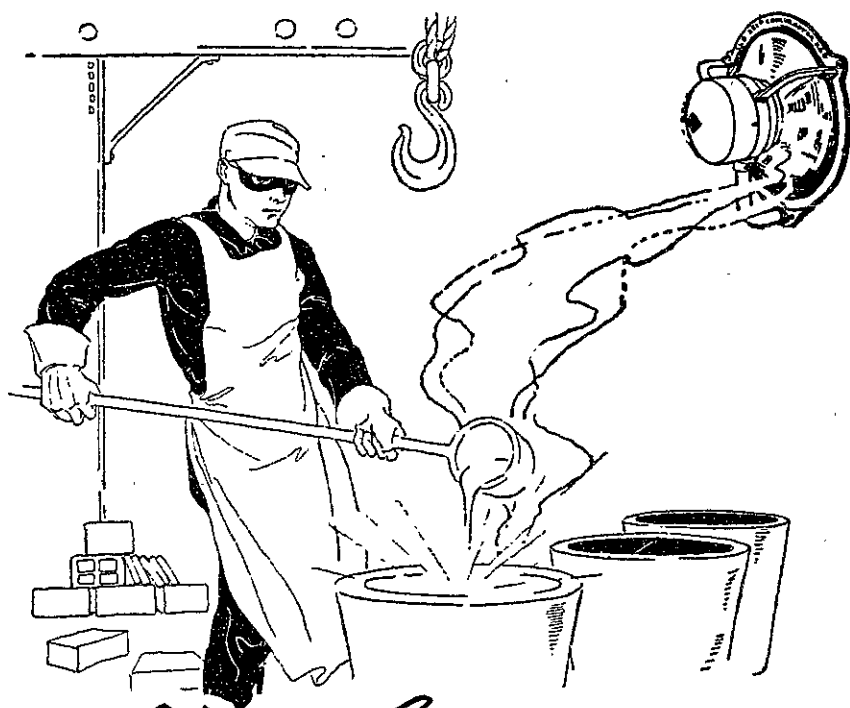
IMPROVE THE COOK'S TECHNIQUE  
GET AN

# ILG AIR

"BUILT-IN" KITCHEN VENTILATOR



For Sale By  
Electrical Dealers  
*Everywhere*



ILG Self-Cooled Motor  
Propeller Fans

ALL SIZES SHIPPED FROM STOCK



For Offices, Stores,  
Factories, Public Buildings,  
Theatres, Restaurants, Homes, etc.

N. Y. OFFICE—15 PARK ROW

**ILG ELECTRIC VENTILATING CO.**  
2850 N. Crawford Ave., Chicago

S. W. WEIS, M. I. T. '92, Pres.  
J. M. FRANK, M. I. T. '07, V. Pres.

C. A. ANDERSON, M. I. T. '05, Manager Phila. Office, Commercial Trust Bldg.  
M. C. TOMPKINS, M. I. T. '04, Manager Boston Office, 136 Federal St.